BRANFORD ELECTRIC RAILWAY
JOURNAL

PATH car 745, survivor of 9/11, comes to museum

N.Nietering

No other car in the museum's collection arrived with nearly the fanfare as the newest addition, Port Authority Trans-Hudson (PATH) 745 did on Thursday, August 6th, in a parade down River Street and ceremony attended by hundreds of well-wishers.

It was a Sunday in 2001, but Peter Rinaldi, a senior engineering manager with the Port Authority of New York & New Jersey was working another long, grueling day at "ground zero," coordinating the logistics of the recovery operation. He opened an intact emergency exit hatchway on West Street near Vesey Street and entered, along with several other engineers, police and fire personnel, the north tube of the PATH system's loop through the World Trade Center site. They had no idea what to expect. The tunnel was flooded and so small rafts were employed. Paddling through a remarkably intact section of the tunnel and following the submerged trackway as it curved right, they found themselves at the north end of the 5-track PATH WTC station. There Peter climbed onto the platform and walked through the doors of car 745, still open and waiting for the passengers that never came back on 9/11. He stepped aboard the car and into the operating cab and at that moment became determined that, somehow, this car must be saved. Over 14 years later, his vision became a reality as car 745 touched down on trolley museum rails and became part of our collection.

Peter was the natural choice of the Port Authority to hold this important engineering position and work in conjunction with the New York City Department of Design and Construction to supervise the site cleanup and recovery program. Peter had started his

continued pg. 4

The 2015 Operator Training Graduating Class (l-r) Santo Galatioto, Mark Sampson, Anton Telesca, Mark Sullivan, Eva Besmer, Bob Sampson, Harry Roscoe, Howie Mann, Mike LaCorvara. (*K. Rosen*)

The Branford Electric Railway Journal

Published by The Shore Line Trolley Museum
"the First Operating Trolley Museum in the United States"

17 River Street
East Haven, CT 06512
www.ShoreLineTrolley.org

General Inquiries:
office@ShoreLineTrolley.org
Ph: (203) 467-6927 FAX: (203) 467-7635

Circulation: 1000. Subscription is included with membership.

Read this and past newsletters, as well as up-to-the-minute news and events, at the Members-Only section of the museum's web site:
www.bera.org/membonly.html

Editor-in-Chief: Jeff Hakner
Journal Logo: John R. Stevens

Correspondence to the editor may be sent to the address above, via fax, or via email to
editor@bera.org.

Copyright ©2015 Branford Electric Railway Association, Inc.

Membership and Other News

Since our last issue, we welcomed aboard the following new members: Jaden Aman, Marie Aman, Wilner Aman, Paul Aronson, Mary Babinski, Andrew Baumer, Edward Becker, Kaity Berkowitz, Howard Bernhard, Claire Bowern, Evelyn Brown, Felicity Brown, Keegan Brown, Lucas Brown, Nancy Brown, Tristan Brown, Stephen Michael Brunelle Jr, Adam Caspari, K Dexter Cheney, George Chiasson Jr., Kate Ciak, Michael Ciak, Savannah Ciak, Sierra Ciak, Daniel Cohen, AJ Cooper, Mary Cooper, Samantha Cooper, Braeden Coughlin, Allen F. Crivello, Anthony Cruz, Dana Cruz, Greg Cruz, Mia Cruz, Tom Cuchara, Nicola Dangelo, Joseph Edward Deko, John Edward Dowalgo, Joseph Ehrlich, Amy Ferland, Zachary Ferland, Christopher Fowler French, Gerald C. Gagnon, Anna Galatioto, Grace Galatioto, Michael Galatioto, Jonathan Gilbert, Latraya Harris, Harold Hasell Jr., David Hawkins, Edith Hawkins, William Hawkins, Frederick Hessler, Chana Hodakov, Chaya Hodakov, Devora Hodakov, Etty Hodakov, Nisson Hodakov, Pamela Hodakov, Rochel Hodakov, Yanhal Hodakov, Yosef Hodakov, Georgiana Iannotti, Paul Jakubson, Michael Kam, Amy Kesavan, Jayan Kesavan, Karsin Kesavan, Vasan Kesavan, Garry Konner, Marcus Konner, Michael LaCovara Jr., Anthony Lasala, Malcolm Laughlin, Thomas Lenhart, Devon Loadholt, Joseph Luciano, Julianna Luciano, Michelle A. Luciano, Mathew Lyons, Sophie Mages, Eric Carston March, Silas Judson March, Terri

continued pg. 10

Raymond F. Crapo

Raymond Francis Crapo Jr., who in the 1960s through the early 1980s was instrumental in shaping the museum's programs, passed away on April 5th at the age of 78. He was born June 25th, 1936 in the Bronx and not only resided continuously in that borough but indeed devoted much of his life to it.

Ray, as he preferred, joined the museum in 1965 when it was just 20 years old. Visitors primarily took a trolley ride, which at that time was sufficient for most museum visitors who had generally experienced riding trolley cars in regular service. The museum's guidebook slogan was "Ride Down Memory Lane" and the museum was selling self-guided nostalgia. Ray had the vision that as time marched on, fewer visitors would be there for "nostalgia" which may be defined as re-living a previous experience, because they would be too young to remember riding on the trolleys. He sought to professionalize museum and its visitor experience and towards that end instituted what was, at the time, an extremely controversial practice.

Under this new program, the volunteer trolley "motormen" were also required to give a guided tour. At the time, many volunteers took offense as they felt their purpose at the museum was just to run the cars. Ultimately, the understanding developed that engaging the visitors was just as important as engaging the controller handle, and this dual natured volunteer operator/docent model was adopted by many other trolley museums. Ray himself often related a story of an Association of Railway Museums (ARM) Convention in the mid-1970s which he attended at another museum. A highlight of these conventions was the chance to run the cars at other venues. When Ray's turn came up, his host quipped "wait, Ray, before you can run this car you have to give us a 1/2-hour guided tour!"

Scott R. Becker, former ARM President, current Executive Director of Pennsylvania Trolley Museum, and a member of our museum as well, recalls Ray fondly:

I had the privilege of working with Ray in the 1970s and early 80s when the Museum greatly improved its visitor experience and outreach into the community. Ray developed our guided tour program and wrote a book *The Environment of the Traction Era* to help docents understand the Trolley Era. Ray also developed training materials and ran the docent training program for a number of years. Training was a natural for Ray since he was a life long educator having been a teacher and Assistant Principal at Evander Childs High School in New York City and later a trainer for the New York State Office of Courts & Administration.

Ray also helped to found the Museum's Dept. of External Resources, which sought grants and worked with many community groups and funding agencies. A crowning achievement was the listing of the Museum's trolley line and collection as a National Historic District, which culminated with Governor William O'Neill operating car 500 down the track at the celebration of this achievement. Ray worked very hard with John Stevens (President of the museum at that time) and published a commemorative book that raised funds for the Museum. Ray was also very involved in the 1980 Association of Railway Museums Conference that was hosted by BERA.

Ray will also be remembered for his humor and wit and his keen sense of history. He served as President of the Bronx County Historical Society for many years and felt that history should be fun, interesting and accessible to everyone. When he took a group on a tour he captivated them as he brought history to life! I tip my hat to Ray for he inspired me to make museum fund raising and administration my life's work."

It was during Ray's career as a NYC school teacher, which he began in 1961 after having earned a Master's Degree from Fordham University (also in the Bronx), and continued until he left for the NY State Courts Dept. in 1974, that he inspired a pupil to become involved at the trolley museum. That pupil was Tom Shade who followed Ray as the museum's Training Director, but whose museum career was cut short by his death at a young age in 1995.

Ray's son, Raymond F. Crapo III, recalls his father spending a full week nearly every July in the 1970s camping out at the museum with the entire family. The Crapo children, Ray III, Donald and Carolyn, grew up with many of the trolley museum regular volunteers being their "uncles and aunts." Lunchtime meant riding one of the ConnCo open cars in service (1414 or 1425) to Short Beach and walking to the corner where a small cafe operated. Sometimes lunch was brought back and consumed at the picnic grove.

During these long hot summers, in the days before big theme parks, when most households did not have air-conditioning, and there was no internet, most families sought outdoor leisure activities. A very popular special event which was the brainchild of Ray Crapo was the "Pageant of Trolley Cars." Visitors would assemble in the reviewing area around the main yard and watch as about two dozen cars of all descriptions paraded past. There were passenger cars, rapid transit cars, work cars, basically anything that could operate and was presentable. As each car reached the road crossing it would pause and the narrator, almost always Ray, would give a brief description and history. Then the car would head off east and around the curve, to be followed by the next car. It was a sort of guided tour where the audience remained stationary. The pageants required almost as many qualified operators as cars and were difficult to staff, but attracted hundreds, and at times even over a thousand visitors, with four shows per day.

Ray is survived by his wife Mary, children Carolyn, Donald and Raymond III, daughter-in-law Jennifer, and grandchildren Jake and Joshua. He will be remembered at the trolley museum for his wit, his style and his visionary ideas.

L: Peter Rinaldi in the cab of 745, Sep 30, 2001. ABOVE: 745 on track 3 of the WTC station, Sep 30, 2001. Note the orange paint marks indicating that the area had been searched, and the water on the platform. (*courtesy Peter Rinaldi*)

career as a Civil Engineer with the PA in 1973 where he was first introduced to the World Trade Center site, working on foundations for #4 and #5. He was very familiar with the intricate subterranean structures and the critical concrete slurry walls -- the so-called "bathtub" -- which held back soil and water table pressures in this site which extended down to level B-6, some 75 feet below street level. The PATH station, and car 745, was on level B-5. Levels B-4, B-3, B-2 and B-1 were above it, along with the underground "Concourse" level. Getting this car out intact was going to be a challenge.

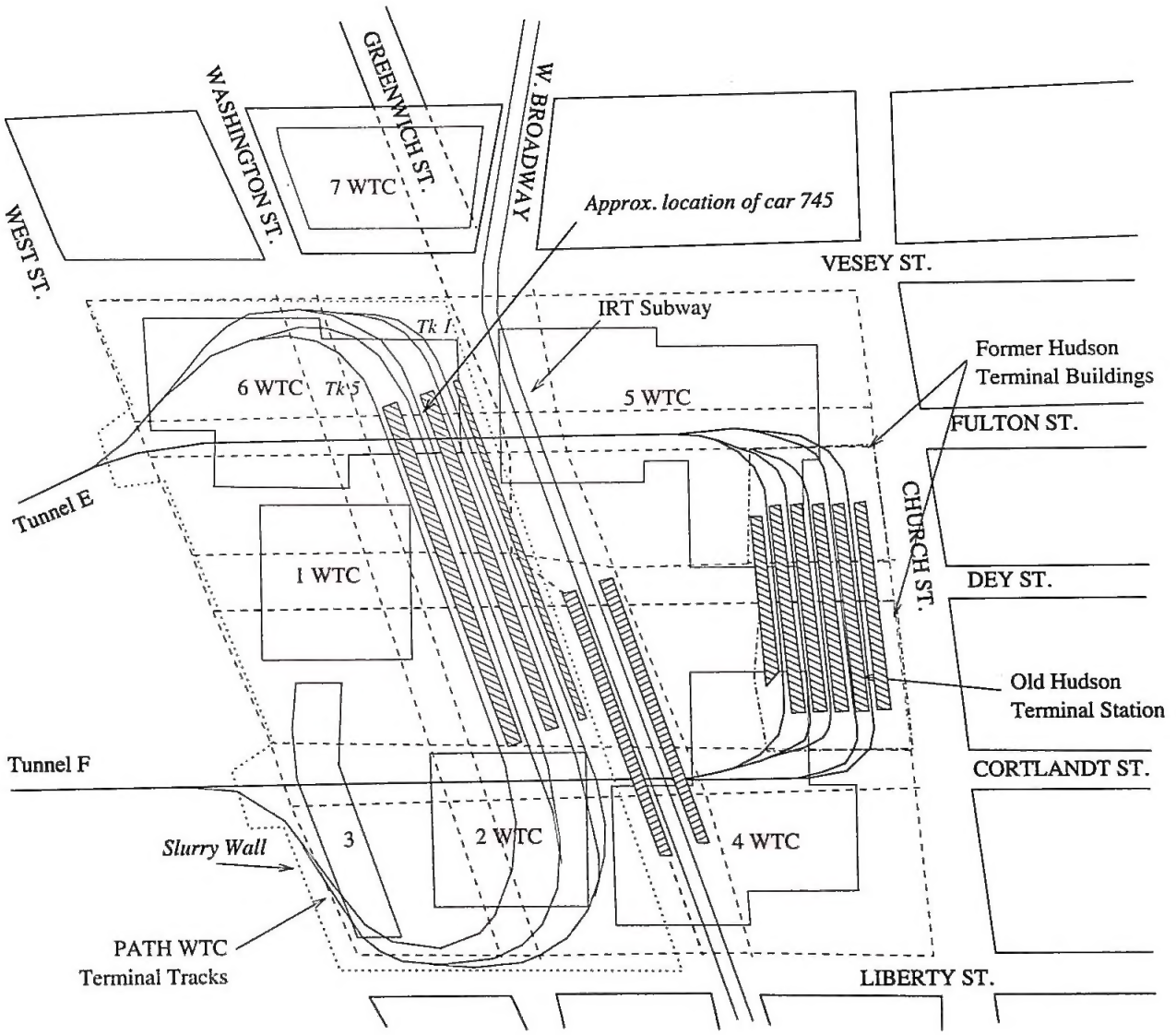
Car 745 was the lead car (on the north end) of a 7-car train which had left Hoboken at 8:42 AM, arrived on Track 3 at about 8:52, and was due to depart the loop station at 9:00 AM for the return trip to New Jersey. Behind it were cars 143-160-845-750-139-612. When the unthinkable happened, the entire PATH station was ordered evacuated, employees included. As a result, there was no loss of life on the train or in the station. This was verified fairly early in the search/rescue phase, when first responders initially reached the train and marked it all-clear of victims. The layout of the station meant (see figure, pg. 5) that the south end was heavily damaged by the collapse of the south tower while the northeast end was not in the direct path of the collapse of north tower. Car 745 showed very little damage with just a few small dents and gashes, while 143 behind it had larger areas of damage. Conditions got progressively worse, with portions of the rest of the train crushed under the twisted ruins of concrete slabs, rebar and steel beams that once formed levels B1-B4.

At this initial survey, it might have seemed hopeless to get any cars out intact, but Peter had a plan which was slowly implemented within the larger mission of getting the site cleaned up. Thousands of tons of wreckage were removed with large excavators, moving from south to north. Much of this material was taken to Staten Island where the gruesome process of sifting for human remains took place. Eventually the clearing process reached the basement levels and they were ripped apart by the heavy equipment. All of the remaining cars in the train, other than 143 and 745, were taken off the site in pieces and scrapped.

It was now February 22nd, 2002. The area that had been the south part of the station was completely clear and graded. Cars 143 and 745 were up ahead in the extant part of the station, still topped by the partial remains of levels B1-B4. A temporary track was laid up to car 143 and a long cable was attached between an excavator and the coupler of 143, as seen in photos on pg. 6. The machine backed up, its treads supported on heavy planking, and 143 was pulled into the daylight for the first time in months. A crane picked it and set it aside, and now a similar process was used to pull car 745 south and into the clear, where it was lifted and set aside. There was still no way to transport these cars off the site.

By March 2002, a temporary pre-fabricated steel truss bridge was completed and connected to Liberty Street. Two "Lowboy" trailers were then able to accept the two cars and truck them to another Port Authority facility, JFK airport, where they eventually went inside Hangar #17 for a thorough cleaning and decontamination. This location was used to warehouse other WTC artifacts, many of which were intended for presentation and display at the planned 9/11 memorial museum.

This museum opened on the tenth anniversary of the tragic event, but the PATH cars were not to be found within. During the design and construction of the museum, it had become apparent that these large-scale artifacts were just too large to fit inside. Peter Rinaldi retired from the Port Authority in 2010, with his dream of seeing the cars preserved still unresolved. Several



ABOVE: Composite sketch of historical conditions and conditions as they existed on 9/11/2001 at the World Trade Center site, based on information provided by Peter Rinaldi, Bromley's Atlas of New York City, 1911 edition (New York Public Library Digital Maps Collection #1512206) and Terry Kennedy. BELOW L: Cars 143 and 160 in the station on track 3, January 14, 2002. R: Cars 139 and 612, further south, are destroyed under the rubble. (*courtesy Peter Rinaldi*)

ABOVE: The recovery site on February 22, 2002, taken from the World Financial Center on West St looking east. Referring to the circled numbers (1) Trackway of IRT Cortlandt St. station below former line of Greenwich St. (2) Old H & M south tube penetrating slurry wall. (3) Passageway from level B-4 under the IRT subway and up to the Concourse level. (4) Car 143 has just been set down by the crane on timber dunnage. (5) Car 745 awaits extraction. (6) Temporary track and excavator which was used to drag cars out. (7) Intersection of Church and Vesey Streets. (8) Construction ramp to Liberty St. BELOW L: A cable is hooked to the coupler of 143 which is about to be dragged south. R: Car 745 is swung over 143 by crane. (*courtesy Peter Rinaldi*)

ABOVE L: 745 is transferred from one flatbed to another outside of Hangar 17 at JFK airport, Tuesday 8/4. (*Bill Wall*) ABOVE R: Passing beneath a large American flag supported by aerial ladders of the East Haven and Branford Fire Departments. (*Ken Rosen*) BELOW R: Car 6688 couples up on the ramp. (*Ken Rosen*) BELOW L: 6688 tows 745 across the East Haven trestle. (*Howard Williams*)

groups had expressed interest, but none had the means to transport and display them. A referral from the New York Transit Museum in Brooklyn to trolley museum President Emeritus Bill Wall was presented to the full trolley museum Board of Trustees and led to a vigorous discussion. While such a car is very "modern" in comparison to our collection, which has an average construction date of 1911, and while rapid transit equipment is an ancillary rather than a core focus of our collections scope, ultimately the museum must, to achieve its vision of perpetual conservation of our collection, make this collection relevant to future generations. At hand was an opportunity to display a piece that was strongly tied to arguably the most important historical event in recent United States history. Imbued in car 745 is the ordinary -- the seemingly endless ebb and flow of the typical work-day commuter -- and at the same time the extraordinary events of a day which changed world history.

Several months were spent going through a very thorough process with the Port Authority and their contracted representatives to enable the museum to take possession of the car and other artifacts from the site.

Historical Background

The Shore Line Trolley Museum has another car which was operated by PATH, although we catalog it as a Hudson & Manhattan car. Number 503 was built for the H & M in 1928. As detailed in the April, 2008 museum newsletter article, the H&M was often called "the tubes" because of its construction method as a bored tunnel with cast-iron rings supporting the concrete lining. Two of these rings were also donated to our museum. The H&M, a private company with a good reputation for customer service, opened in 1908 (although the first construction activity dated to 1874) with service on the uptown - Sixth Avenue portion.

A second portion of the H&M system opened in 1909. It was a loop terminal fed by two tubes beneath the Hudson River and was located in the basement of the original Twin Towers, the Hudson Terminal buildings, which occupied the blocks bounded by Church Street on the east, Greenwich Street on the west, Fulton Street to the north and Cortlandt Street on the south. Dey Street ran between the north and south Hudson Terminal towers, each 22 stories tall. Cars such as the museum's #503 ran through this loop terminal as well as the Sixth Ave. line. The first group of cars was known as "Class A" and the last group, including car 503, was "Class J." These 1908-1928 rolling stock were supplemented in 1958 by 50 cars of class "K/MP-52" which were ordered to provide additional service

Newark-Hudson Terminal service. These cars resembled contemporary NYC subway cars such as #6688 in the museum's collection. No K/MP-52 cars were preserved.

By 1954, the private H&M was feeling the effects of automobile and bus competition and, like many other passenger rail companies, entered bankruptcy. The company was acquired by the Port Authority in 1962 and became known as PATH at that time. New cars were designed and ordered and by 1965, some of the original cars were being replaced by these new "PA-1s." The 1965 PA-1 cars were either "A" cars, having an operating cab at one end, or "C" "blind motor" cars, to be used in the middle of the train only. Unlike the nearby NYC Transit Authority, PATH did not use true "married pairs" -- each of the A cars could be moved as a single unit, but it took at least two cars to make up a usable train for passenger service. A second order of nearly identical cars, PA-2, arrived in 1966-1967.

Car 745 was delivered as part of order PA-3 in 1972. It was the first H&M/PATH car to be made outside the United States, the contract being awarded to Hawker-Siddeley of London, Ontario, which was also building equipment for the Washington Metro. PA-1, PA-2 and PA-3 cars were all interchangeable and interoperable, having aluminum bodies with fiberglass ends, two doorways per side, and measuring at 51'6" across mating faces of couplers (the same length as IRT equipment). With the arrival of the 46 PA-3s, which were all "A" cars, the last of the pre-war fleet, known informally as the "black cars" because of their steel-dust coated grimy exterior, were retired from passenger service. It could therefore be said that car 745 replaced car 503. Our museum obtained car 503 in 1979, after a period of work car service. Car #256, a 1909 "C class', was preserved in 1966 by the St. Louis Museum of Transportation.

In 1986, class PA-4 arrived. This was the first stainless steel equipment for PATH (the cars were made by Kawasaki) and it led to the retirement of the K cars from passenger service. As delivered, they could not run with the earlier PA1-PA3 cars. During this time period, all of the PA1-3 cars were cycled through Kawasaki's plant in upstate New York for overhaul and were made to be electromechanically compatible with the PA-4s. In the mid-2000s, PATH made a stunning announcement: they were soliciting new cars to replace the entire fleet. Class PA-5 began arriving in 2008 and by 2012, 340 cars were accepted and all of the older cars were retired. While the stainless steel PA-4s were retained for work service, the aluminum-bodied cars were all scrapped.

According to a 1961 Port Authority study, the primary reason for acquiring the H&M was to prevent it from shutting down and diverting 31 million annual passengers to the PA's already overburdened automotive crossings of the Hudson. Initially, a plan was put forth to retain and modernize the Hudson Terminal buildings, and the most favored location for a planned World Trade Center was actually on the East River. By 1962 however, that plan had shifted to incorporate a complete re-development of the Hudson Terminal property into the WTC. Additional parcels were acquired through a controversial eminent domain process, displacing an industrial neighborhood of low-rise buildings known as "Radio Row", until the Authority had assembled a contiguous parcel of 12 city blocks and began construction in August 1966.

The area was rich with rail transit history. In addition to the Hudson Tubes, the IRT's ca. 1917 subway (today's #1 train) ran under West Broadway which merged into Greenwich St. at Vesey, with a station at Cortlandt & Greenwich (above the H&M tubes). The IRT's Ninth and Sixth Avenue elevated lines stopped at Cortlandt and Greenwich/Church (respectively) -- these were torn down by 1940. Streetcars traversed many of the streets. Horsecar #76 in the museum's collection most likely ran nearby, just a block away, turning from West Broadway east onto Vesey St. Along West Street, which was once the waterfront, numerous connecting ferries from New Jersey railroad terminals docked -- these ferries would slowly be obsoleted by rail and then automobile tunnels under the Hudson.

Building the WTC site while keeping the IRT and PATH stations open was an engineering challenge. The blocks on the west side of Greenwich St. were excavated and at the same time a slurry wall was built on all four sides, which the news media often called the "bathtub." To be fair, it was the exact inverse of a bathtub, in that it was designed to keep the water out. The site depths ran far below the water table line which was to be expected ... in colonial times, the waterfront was not much beyond Greenwich St. During the excavation, the 1909 vintage H&M "tubes" were exposed as the soil was removed around them. Temporary shoring resembling a trestle was used to suspend both the south tube (under Cortlandt St.) and the north (under Fulton St.) during construction (see photo pg. 9).

The existing loop terminal was kept running beneath the site of the former H&M towers, which were demolished. A new loop terminal was being built. To allow for longer train and platform length, the new track design made a "dog-leg," turning sharply south away from the south tube and running under what had been a city block, diving down beneath the existing tube, then turning north and fanning out into the 5-track station. The north end was nearly identical. Finally, in July 1971 the new station was cut-in and the old tubes to the east were cut off. However, portions of the old H&M station continued to be used as a loading dock within the WTC site. These last vestiges were removed ca. 2008 as reconstruction of the site progressed.

Coming to the Trolley Museum

On Tuesday, August 4, the trailer that had held car 745 in Hangar 17 was rolled out into the daylight. Two cranes picked up the entire car and moved it to the special Silk Road Transport trailer. After making the long voyage over the interstate highways, the trailer and 745 arrived in East Haven on Wednesday evening. Thanks to the generosity of Tom Hennessey of Forbes Premium Fuels, it was housed safely at the East Haven Industrial Park overnight.

On the morning of Thursday, August 6th, the Red Knights firefighter motorcycle group escorted this unusual cargo up Hemingway Avenue to the Town Green. At 11:00 AM the short parade stepped off. Leading were the FDNY honor guard and their bagpipe band, followed by the East Haven FD honor guard, the Emerald Society bagpipers (representing many Connecticut fire departments), uniformed first responders from Branford, East Haven, North Haven and North Branford, museum officials, elected officials and other honored guests, and at last followed by car 745 atop the trailer. Inside were Peter Rinaldi and Al Zelazo, museum Trustee and PATH engineer. Al was at work on the evening of 9/11 and ran one of the first trains into Manhattan after service was restored on the uptown branch.

The procession marched down River Street, which was lined with hundreds of spectators. Upon reaching the Trolley Museum, car 745 was parked with the small reviewing stand and podium in front of it and H&M car 503 nearby. Museum General Manager Wayne Sandford was the Master of Ceremonies. On 9/11/2001, he was the East Haven Fire Chief and gave the order to send East Haven firefighters down to New York to assist with the rescue and recovery effort. This was supported by the first speaker he introduced, East Haven Mayor Joe Maturo, who was also Mayor on that day. Additional speakers were Branford First Selectman Jamie Cosgrove, United States Senator Richard Blumenthal, Museum President Jeff Hakner, State Senator Sean Scanlon, Museum Trustee Al Zelazo, and Branford Second Selectman Joe Higgins. Joe, a retired top official with FDNY, recalled the morning of 9/11 as he and several other top-ranking FDNY personnel left the command center in Brooklyn to rush to the scene. Joe was the only one to come back.

Media coverage of the ceremony was live on some local channels, and was picked up by major outlets in Connecticut, New York and nationally. Volunteer trolley operator Bob Rodenkirk, a reporter for CBS radio news in the Chicago area, happened to be here for his yearly visit and filed his story, which aired on the CBS radio network news. With this much publicity, many visitors were asking to see the car already the next day.

To Barn 5, and the future

Once the crowd of hundreds subsided, the hard work began of getting 745 onto our rails and under cover. With Bill Wall - who coordinated all aspects of moving the car - at the helm, our NYC subway car 6688 came up to Sprague Station and partially ascended the temporary steel ramp between the track and the Silk Road trailer. Using a coupler adapter, this car was coupled up to 745. Chocks, straps and cables that had been holding 745 on the trailer were removed and 6688 gave a tug. At first, all of the axles of 745 just slid. This was expected, as the trucks had been underwater for at least 3 weeks following the disaster. With some rocking back and forth, eventually all of the axles broke free of their rust bonds and the car was towed to the Barn 5 / Sando area. There, using a different set of coupler adapters, H&M car 503 coupled on to the other end of 745 and it was pushed into 51 track for a temporary display of the car's exterior.

A few weeks later, additional materials such as signage from the WTC PATH station and intact pieces of the cast-iron tunnel lining comprising two complete rings arrived. The question of when, or if, car 745 may ever run again is an open one. Because of the long-duration flood which was approximately to the platform height, almost every mechanical, pneumatic and electrical component under the car requires replacement. The museum's plan for the immediate future is to make this car viewable by the public, with a more permanent exhibit that will allow visitors to enter the car to be opened on 9/11/2016.

Thanks to Alan Zelazo, Terry Kennedy, Peter Rinaldi and the PA-NYNJ for contributions to this article.

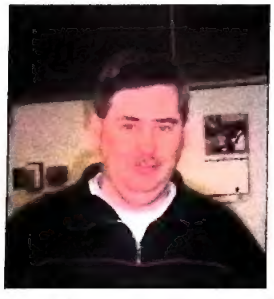
ABOVE L: H & M car 503 pushes 745 into barn 5. (*Ken Rosen*) BOT R: On display several days later with sign also donated by PATH. (*J. Hakner*) TOP R: Cast-iron tunnel ring sections, dating from ca. 1908, were also donated to the museum by PATH. (*J. Hakner*) MID R: WTC site in 1968 with south H&M tube exposed, old West Side elevated highway in the distance. (*courtesy PANYNJ*)

from pg. 2

Marshall, Roberta McCarthy, Steven McMahon, John D. Meyers, Will Minter, Bill Monaghan, Robert Montag, Henry O. Mulvey, Russell Munroe, Kristy Murray, Richard Neagle, John O Brien, Richard O'Neill, Geoffrey Palmer, Barbara Parsons, Laurence Pearlman, Merle Kenneth Peirce, Charlie Peters, James J. Pogmore, Alicia Prete, Hannah Prete, Tina Prete, Amy Provencal, Jake Provencal, Luke Provencal, Mike Provencal, Sean Provencal, Alexander Rabb, Harold A. Rahrig, George Rich, Robert Righter, Eleanor Ritch, Jim Romanelli, Jason Rowe, Leah Russell, Ronald P. Salyk, Rose C. Salyk, Suzanne Samuels, John Sauer, Joseph N Schneiderman, Cameron Schulze, Caraly Schulze, Kendall Schulze, Lucy Schulze, Mike Schulze, Ozzy Schulze, Chary Scott, Roger Senserrich, Kenneth Shor, Mark Shor, Daniel Sims, Ken Sittnick, Jordan Smith, Peter Straus, Patrick H Swan, Nelson Edward Timken, Brian Tonan, Connor Tonan, Kara Tonan, Alex Toriello, Jonathan Ulintz Mosovich, Quinn Ulintz Mosovich, Sue Ulintz Mosovich, Matthew Steven Vitka, Ophadell Williams Jr., Zulema Williams, Bill Wozniak, Pamela Yannella.

Check your mailing label! If it says 2014 then your membership is not current for the 2015 season. Please renew so that you continue to enjoy the benefits of trolley museum membership. The museum has crossed another milestone of sorts, with the "pass number" issued to new members now breaking through 5,000. The museum has 1,351 individual members on its current roster, but only 946 are active for the current 2015 season.

Our best wishes to the family of Board Chairman Lou Levinson, who recently observed the anniversary of the passing of Lou's father, Richard Levinson, member #2923. We also learned of the passing of Patrick Sarsfield O'Keefe who was a lifelong resident of Rutherford, New Jersey. Although he was not a member of the museum, he visited frequently. His family made a donation to the museum in his memory and described Patrick as someone who was "particularly interested in mass transit, and never missed a chance to ride the local systems in any city he visited. He collected books on all aspects of transportation, photographed buses and subway trains, and amassed an impressive collection of bus, train, and light rail timetables, maps, advertisements, tickets, passes, tokens, models, and other transit-related ephemera. He enjoyed riding historic steam trains and visiting transit museums. The Shore Line Trolley Museum was a favorite of his. He will be greatly missed by his family and friends, who regret that with so many buses and trains still to ride, he left us at age 63."



New Operator Class

Congratulations to the graduating trolley operator class of 2015! Once again, the training crew performed admirably in the face of difficulty, this time snow, and a lot of it, which persisted into mid-March. The 2015 public programs schedule, including Easter Bunny in March, forced training to start on February 28th and the trainers also had to become snow fighters to get the line open enough to begin the class. Instructors included co-leaders Rodger Addil and Mike Kelley, Bill Dobkins, Peter Callahan, Roberto Tillman, John Proto, with special presentations by Dana Bowers, Lou Levinson, Wayne Sandford and Jeff Hakner. Thanks to the trainees for roughing it: Eva Besmer, Santo Galatioto, Mike LaCorva, Howie Mann, Harry Roscoe, Bob Sampson, Mark Sampson, Mark Sullivan, Anton Telesca.

It's not too early to start planning for 2016. Mark your calendars: the training class will be held on five Saturdays in April and May, when we hopefully will not have snow!

Museum Director

During July, Nathan Nietering, who had served as the Museum Director since 2013, and prior to that as the Office Manager since late 2011, announced that he would be returning to his home state of Michigan to accept a new position as the Director of the Saugatuck-Douglas Historical Society. Museum General Manager Wayne Sandford recognized Nathan for his service during what has been a transformative time at the museum. Nathan was heavily involved with the Elevating the Collection campaign, the FEMA disaster assistance award, fund-raising, community awareness, special events, museum programs and website re-design. Nathan's last day was August 8th at a membership/bylaws informational meeting which turned into an impromptu farewell party. Nathan wrote the following message which was shared via email in July:

> This decision [to take on a new job] was not made easily or without exhaustive consideration. After all, I still wake up every morning looking forward to coming in to work at SLTM. There is never really a right time to move on from a job that one truly enjoys, but unfortunately, in the scope of my life, this time is it.
>
> When I first visited SLTM in 2010, I could not have known the meaningful future the organization had in store for me. I appreciate each of your dedication, enthusiasm, time, and friendship as we have worked together to move the museum forward. I have had the pleasure of getting to know many of you personally and that has meant a lot to me. The museum has made great strides over these past few years.

The open position was advertised, at first to museum members only, and then to a broader audience. At this time numerous qualified applications have been received and are being reviewed. Wayne expects to have a new Director hired by October and he or she will be announced and introduced via email as soon as this decision has been finalized.

Gateway Program

The Gateway Community College Railroad Practicum Internship program completed its third year at the museum. This was the largest class to date, with 21 students completing their 70-hour internship during the Spring 2015 semester. Thank you to Nolan Bath, Frank Contento, Rick Dunlop, Ryan Durand, Caleb Gulovsen, Carlyle Henry, Tim Holmberg, Tom Lenhart, Mathew Lyons, Dan Mongillo, Efrain Ortiz, Anthony Perrelli, Dylan Powers, Kevin Randall, Joe Russo, David Rosario, Rachid Saadi, Christian Savarino, Justin Shepard, Matt Vitka and Matt Wuensch. Not only did their volunteer service help preserve and protect a National Historic District and historic collection, but they also learned valuable lessons in railroading. This year's class worked on track construction, signal construction & maintenance, and traction motor servicing. Several of the students have joined the museum as members and continued to volunteer, and several students have already earned jobs with Metro North, who is a partner in this program, and with other local railroads.

Here Comes Haunted Isle!

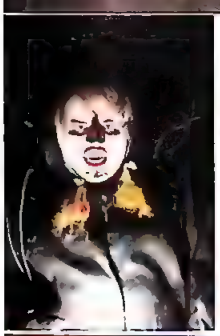
By the time this issue reaches you, the Haunted Isle will be in full swing. Haunt nights for 2015 are Sep 26, Oct 2/3, 9/10, 16/17, 23/24 with the last night on Friday, October 30. The Haunted Isle crew has been hard at work all summer preparing the grounds and has assembled several new scenes and surprises.

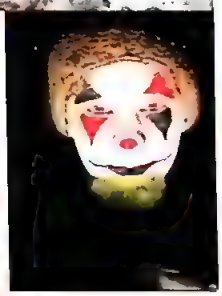
Meanwhile, Pumpkin Patch will be ongoing during the day on Oct 10/11, 17/18 and 24/25. With these two events, there is something for the entire family, so why not bring them down and experience it yourself?

Save the Date

The Annual Meeting of the museum's membership will be Saturday, November 14. Look for a mailing with the full program.

Haunted Isle volunteer Harry Smith assembles the new Pyramid scene. (*J. Hakner*)





(*George Mason phot.*)

L: Actors and visitors pose in front of car 357 at a busy (and hot) Superheros Day, July 25. (*J. Soehnlein*) R: As this issue was being closed, the Derby Locomotive returned home on Sep 15, after a 4-year exhibition at the New York Transit Museum. It is back on display now in Barn 3, among other work cars in our collection. (*J.Hakner*)

Elevating the Collection Update

As the last issue was going to press, a multi-museum volunteer one-week intensive "track blitz" was ongoing, which completed 4 of the 5 turnouts needed for the Building 9 ladder. This was documented extensively in online updates but bears some repetition here. The idea to recruit experienced help from other museums was spearheaded by museum trustee Bobby Ryan. He reached out to fellow museum member Marcus Ruef, who began his railroad career here at the trolley museum in the 1970s. Marcus, who now resides in the midwest and is active at Illinois Railway Museum, reached out to Tom Hunter, also a BERA member and former head of the track department at IRM. This also landed the current IRM track maven, Frank Devries, another former IRM track leader, Adam Robillard, active IRM volunteer Mark Reimers, an experienced track volunteer from Minnesota Transportation Museum, John Von Neuwal, the Signal Department leader from Pennsylvania Trolley Museum, Scott Davis, and a mutual friend who has been active at several museums, Chris Miller. They descended upon our museum during the week leading up to Members' Day and despite some mechanical problems (such as the fully-loaded IRM hy-rail track maintenance truck, which they brought out from IRM, breaking down en-route) accomplished what they set out to do and even had some time left over to make an emergency repair to a broken guard rail on our main line. In addition to the BERA members above, this experienced track gang was assisted by members Paul Davy, Anthony and Antonio Bianco, and several of the Gateway College interns. Jeff Hakner made sure the right materials were ordered and on-hand for the job, and set the control points to guide the layout.

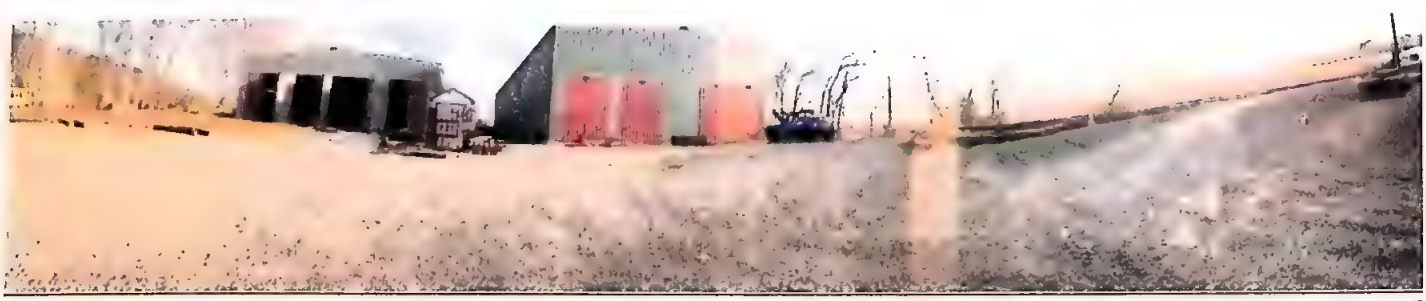
During April and May, the GWCC intern crew working with Jeff Hakner and Paul Davy completed the 83-85 turnout and the connecting track into 83. With this third track of Building 8 done, additional cars were moved inside. However, full realization of the ladder for Building 9 requires that it be connected to the "run-around" track on the side of Barn 6, which in turn requires that the many cars and spare trucks stored on this track be relocated. This was underway as this issue went to press.

Construction of the last turnout in the Building 8 ladder, 84-85, began at the end of May and progressed slowly as the summer turned hot and humid. As of this writing, the turnout is complete and connecting track to the doorway is complete, and very soon track 84 will be in service, allowing us to utilize all of the space in Building 8.

Overhead wire is the next important phase, because without it, placing cars in the new buildings and bringing them back down to the mainline is an awkward task. Towards this end, President Emeritus Bill Wall, through inter-museum trading, has secured most of the line materials that will be required. The museum must still fund the purchase of new line poles, galvanized span wire, and other items. The services of Art Schwartz, a trolley line expert who is associated with Pennsylvania Trolley Museum, have been donated so that a fully engineered pole and line layout is being done. Construction of the overhead line will not begin until the required trackage has been completed.

Another important phase is the installation of permanent electrical service for lighting and outlets. Museum member Rich Parente, a professional electrician, has been working with Eversource (formerly CL&P Northeast Utilities) and has installed the required service equipment in buildings 8 and 9. This has been inspected by the town and approved, so turn-on is expected soon.

ABOVE L: Paul Davy, Frank Devries, Adam Robillard, Jeff Hakner, Tom Hunter, Scott Davis, Mark Reimers, Marcus Ruef, Bobby Ryan. The photo was taken by fellow track gang member Chris Miller on April 24, shortly after completion of this ladder. R: Joe Perrino assembles a joint on 84 track. BELOW: This panorama taken in May 2015 shows just tracks 81, 82 and 83 connected, and the building 9 ladder on the ramp, but the scene is rapidly changing. *(J.Hakner)*



Detailed Work Reports, by Department

Buildings&Grounds

The "Shack" which has adorned the yard since 1960 is getting another makeover. The entire roof was replaced, rotted siding was replaced, the rotted wooden windows were replaced with vinyl, and the door was moved to the railroad west end where it now opens onto a small deck. Signal and telephone wires which had entered the building aerially have now been moved to underground conduits. The classy 1970s interior decor with water-stained white drop ceiling tiles is being made to look more old-timey. The entire exterior and interior has been or is about to be repainted. This project, once complete hopefully by the Santa season, will be an added attraction to visitors and will house a few small exhibits. Project leader **Clay Emerson**, assisted by **Anthony Bianco** and his East Haven based company A&G Construction and son **Antonio Bianco, Mike Hildreth, Dana Bowers, Harry Whipple, Joe Cavanagh**, and others.

Joyce & John Aurelius have made general landscaping improvements around the property, along with **Judy Sittnick**. John also repaired various light fixtures and assisted his wife in repainting the station's Ladies' Room. **Rich Parente** has completed the electrical service equipment for buildings 8 & 9, assisted by **Mike Scholl**, John Aurelius and **Jeff Hakner**. **George Papuga** and **Rob Paradis** performed periodic grounds upkeep. George also completed installation of metal panels along the exterior walls of Barn 7 and repainting the facade on the railroad west end.

Track

Again most of the labor effort in the Track Department was focused on advancing the Elevating the Collection project. As reported on page 12, turnout 83-85 was completed along with the left-hand curve into 83 track. Once the connection was made to the previously-completed track inside the building, stone was spread and the track was leveled and tamped. This track opened for service in May. Turnout 84-85 was built over the summer and the connection is nearing completion at this writing. The one-week blitz during April gave us turnouts B-94, 90-94, 93-94 and 90-92. Work remaining on the project includes the connection from turnout B-94 to the run-around track, the new Burch loop between turnouts 81-B and B-94, outside tracks 85 and 90 including a crossover between them, turnout 90-91 and all connecting tracks and interior tracks for Building 9. In terms of track footage, the project is about 75% completed, and in terms of time and complexity, about 90%. Ongoing track maintenance included servicing the automatic lubricators, spot tie replacement in the area of Barn 6 and 7 leading to the run-around track, spot tie replacement on the mainline near the loop, and repair of a broken guard rail in Riverside East curve. Track volunteers included: **Jeff Hakner, Paul Davy, Christian Savarino, Carlyle Henry, Dan Mongillo, Joe Perrino, Rachid Saadi, Ryan Durand, Kevin Randall, Matt Wuensch, Frank Contento, Bob Ryan, Efrain Ortiz, David Rosario, Matthew Vitka, Marcus Ruef, Tom Lenhart, Adam Robillard, Tom Hunter, Scott Davis, Mathew Lyons, Frank Devries, Mark Reimers, Chris Miller, Braeden Coughlin, George Papuga, Antonio Bianco, Anthony Bianco, Jim Day, Joe Marcarelli, Rodger Addil, Jay Nickse, Denny Pacelli, Ken Rosen, Rob Paradis, Mike Hildreth, John DiSarro.**

Signal

Signal troubleshooting disclosed the need to replace an "audio frequency" track circuit between signals 28 and 30. This resolved intermittent issues with signal 30. Signal bulbs and sockets were replaced in several locations as needed. Bonding for traction power return followed closely behind new track construction on both the Building 8 and Building 9 ladders. Signal, telephone and data cables are being relocated in conjunction with the "Shack" project. Signal dept. volunteers: **Dana Bowers, Harry Whipple, Paul Davy, Joe Cavanagh, Jeff Hakner, Rob Paradis, Clay Emerson, Bob Sampson.**

Line

George Papuga, assisted by **Rusty King, John Cox** and **Rodger Addil**, performed overhead wire maintenance in the loop area and back towards Barn 7. Span wires, hangers and insulators were replaced at poles 158/159, 154, 136/137, 132 and 126. These locations are between the Quarry Trestle and the Short Beach end of the line. There were a couple of poles where the wire is supported with a bracket arm rather than span construction, and here the bracket supports were renewed as well, in addition to painting of the arms. Work then continued in the Narragansett, Edgewood and Alex areas. Because these are all locations of mainline switches, frequent adjustment and replacement of worn parts is needed to ensure that trolley poles do not dewire. Work on the mainline is generally suspended during the daily operations summer season, but an emergency repair was needed at the East Haven trestle when a span wire broke. Meanwhile, in the double-wire department, **Ted Eickmann** resumed work on the trackless trolley loop, reconfiguring a wire frog for possible expansion of the route to include 62 track. He prepared several additional steel poles. The phantom trolley wire hanging over the removed 21 track was taken out and with it the now unnecessary trackless crossing. New span wires were run in the area in preparation for the installation of trolley wire crossing Narragansett and leading up the ramp to Building 8.

Vehicle Collection

NJ Trailer **4584** continues to look more and

L: Bob Yohe was lettering car 4584 in June when a thunderstorm forced a hasty mid-word exit. (The full text was later finished: SAVE TIME HAVE FARE READY) R: A technician at Schulz Electric works on a traction motor field coil for car 1425. (*J.Hakner*)

more like a complete car. A major development was the replacement of the shop trucks (this car came to us as an empty body) with Taylor low-floor trucks that are nearly identical to the original equipment. These trucks were obtained several years ago from Trolley Museum of New York. The surplus motors were removed and after a thorough cleaning and painting, both trucks were installed. The letterboard, sides and window sills were painted in traction orange and lettering is being applied based on photographic evidence. Inside the car, the wainscoting is being stripped, sanded and primed. Other parts have been appearing and are being refinished, such as window guards, lamp sockets and the handbrake mechanism. New window sash have been fabricated and are being fitted and glazed. The metalwork on the ends has been repaired and beefed up to support installation of the couplers. Project leader **Ted Eickmann** has been assisted by **Bob Yohe**, **Bob Dusel** and **Ron Parente** who made the wooden sash.

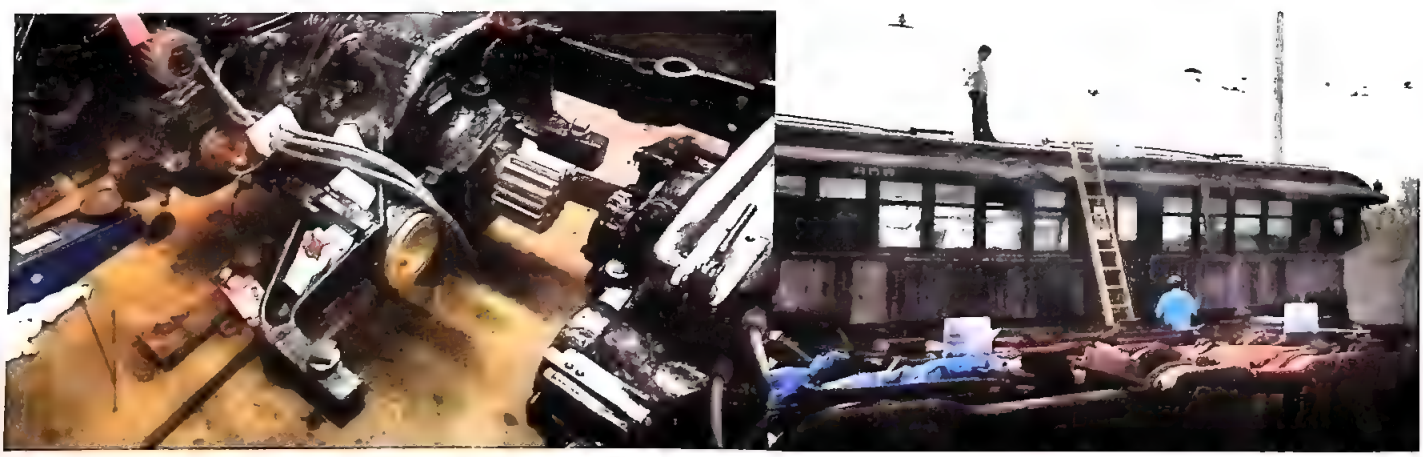
New Bedford **302** made its grand debut on Members' Day and ran down the line several times with far more people than it ever carried in service (as a mail car, it has places for two or three mail clerks plus the operator and conductor). Leading up to this was a lot of strenuous work. The overhauled traction motors, including one that required an armature rewind, arrived at the museum just as the last issue was being printed. Each motor required packing of the wool waste lubrication for the bearings, fitting and shimming of the axle bearings to the caps, and a low-voltage run-in test for several hours to verify bearing operation and motor rotation polarity. The trucks were cleaned down and painted. The wiring harness was "buzzed out" to confirm the connections between the motor leads and the controllers. Several errors in the existing harness were found and corrected. Each motor was hung on the same axle from which it had been removed a year earlier, and after the trucks were back under the car, motor leads connected and insulated, and brake rigging connected, the car was given several test runs prior to being released for Members' Day. 302 was then placed on display in Barn 3, culminating a restoration project that spanned many years and involved many volunteers. Motor repair work on 302 was partially funded by a grant from the **Mass. Bay Railroad Enthusiasts**. In addition to **Joe Marcarelli** who performed the motor re-installation under FEMA contract, volunteer assistants included **Jackie Rodriguez, George Papuga, Jeff Hakner, Mathew Lyons, Matthew Vitka, Efrain Ortiz, Kevin Randall, Dan Mongillo, Ryan Durand, David Rosario** and **Rachid Saadi**. **Denny Pacelli** repaired the lighting circuit.

H&M **503**: **Al Zelazo** continued scraping, priming and painting in the cab areas. He was joined for several weeks in May and September by **Victor Gordon**, who trotted down from Vermont for his semi-annual visit. Together they worked on installing replacement trim around the motorman's windows, painted the door control panels, and continued cleaning up and re-installing various parts. The battery charging relay was found to be defective and was replaced with a spare.

Brooklyn **1792**: Work progressed on two fronts. The cosmetic restoration of the interior as a passenger car is now complete. This effort was led by **Conrad Misek** who was assisted at times by **Paul Hilzen** and **Joe Cavanagh**. This car came to the museum as a work car -- it was used to transport sand. As such, there was no interior. Conrad made a reproduction interior, based on some surviving sample parts from similar cars that were saved in the 1950s. The air compressor governor was moved back to a location under the seats. The seats were made new. The risers were constructed mainly from plywood, with trim applied on top. Missing interior trim was replicated based on a best estimate from surviving interior photos (for which we thank museum member **Don Harold**) as no specific drawings of these details could be located for this series of car. The rattan seat cushions and backs themselves were assembled partially by salvaging similar items in our spare parts inventory and by making new parts as needed.

Meanwhile, the flooded air compressor was overhauled. This work would have been eligible for claim under the FEMA Sandy award, but that award had not yet been granted at the time. Therefore, **Joe Marcarelli** volunteered his time to take the compressor apart, clean, bake and re-insulate the field coils and armature, and turn the commutator. **Jeff Hakner** and **Joe Perrino** undercut the commutator and disassembled the compressor head and valves, which were found to be frozen in place from the salt-water corrosion. Re-seating of the valves is pending a special-order grinding tool. The traction motors themselves came back from Schulz Electric and are now going through the bearing packing, run-in and testing phase, with re-installation expected during the next few weeks.

Montreal **2001** came back to life in August although not without a number of difficulties. The car came into the shop in May and the trucks were removed. Bent brake rigging was discovered. This was not flood-related and was not claimed under FEMA. Fortunately, we had spare parts which were installed by **Denny Pacelli**, the Master Mechanic. The replacement pinion gears, which had been funded by a 50% matching grant from the **Twentieth Century Electric Railway Foundation**, were installed on the overhauled traction motors. All bearings including journal bearings were re-packed. The trucks were given a quick scrape and paint while the motors were still out. The axle bearings required considerable fitting and shimming. The air compressor, which was repaired at the museum's expense since the Sandy claim was not open yet, was re-hung under the car. We knew that the line switch suffered some Sandy-related



L: An overhauled motor for car 865 with new bearings (bronze colored cylinders in middle of photo) being fitted. (*D. Pacelli*) R: Brooklyn elevated car 659 was built in 1901 and had an extra center door for the heavy Brooklyn Bridge traffic. As part of Elevating the Collection, cars such as this which had been stored outdoors are now going under cover, and perhaps restoration of 659 may begin soon. Here Joe Marcarelli removes the tarp from the roof (the trolley power is off) and Braeden Coughlin assists from the ground prior to the car being towed into Barn 6. (*J. Hakner*)

damage but on closer inspection it was more extensive than anticipated. Substitution of some spare parts and a lot of cleaning and adjustment got the line switch working correctly again. With the air system now pumped up, more problems caused by "sit-itis" (a period of inactivity) were found. The brake cylinder cup had gone bad and some salt-water residue was still present in the bottom of the cylinder. This was cleaned up and a new cup was ordered and installed. The main reservoir cutoff valve, safety control cutoff valve and double-check valve were overhauled. Eventually all of the motors were hung, the motor leads were hooked up, and the car ran under its own power for a test trip down the line. Some shimming was required to eliminate a gear case interference issue, and one of the axle bearings ran hot and required additional adjustment. At this time the car is expected to be ready for passenger service for the last (and coldest) part of the 2015 season. **Joe Marcarelli** (FEMA labor), **Jackie Rodriguez, Mathew Lyons, Matthew Vitka, Denny Pacelli, Rob Paradis, Jeff Hakner, Terry Kennedy.**

Brooklyn crane **9137** is another car which has come back to life after the Irene flood. The car was positioned in the shop and lifted by **Joe Marcarelli** and **Denny Pacelli**. Then **Paul Davy** along with **Liz & DJ Zelanakas, Anthony Bianco, Nolan Bath, Joe Cavanagh, Bob Sampson** and **Bob Dusel** began the process of packing all bearings, run-testing the overhauled motors, and hanging the motors on the trucks, which were also given a coat of black paint. After a few issues were found and corrected in the wiring sequence, the car was tested for proper rotation first on a welder, and then "live" with the trolley pole up, as it ran itself out of the shop and back into service.

Toronto **2898**: Motor overhaul at the motor shop is complete pending several armature bearings which required repair. It is hoped that the motors will be back, and there will be time to get the car movable again, prior to the Santa season. Repairs to the compressor, line switch and possibly other components will be necessary.

Brooklyn **4573**: Specialty wheel lathe cutters, funded in part by a donation from members **Lou Guadagni** and **Greg Gil**, arrived and were examined by member **Bruce Thain** who will be supervising the wheel truing work. The tool holders which we had on hand required modification to accept the new cutters and still clear the wheel and turning dogs. Bruce accomplished this at his machine shop. Repairs to the wheel lathe controls were completed and the lathe has been dry-run. Completion of the wheel truing job is still pending while suitable shop trucks are prepared.

ConnCo **865** is now being prepared for motor re-installation and out-shopping of the car into passenger service for the first time. Motor axle bearings, which were funded primarily by a grant from the **Mystic Valley Railway Society**, arrived in late August. The bearings were cast and machined by Uhrich Locomotive Works in Colorado. Master mechanic **Denny Pacelli** is now going through the tedious process of fitting each bearing to its housing and replacing the worn-out housing dowel pins.

ConnCo **775**: During routine inspection a defective interlock connection at the trolley pole hook was discovered and corrected by **Denny Pacelli**. He also repaired several seat mechanisms.

New Orleans **850**: Two of the journal bearings were found to be running hot. **Denny Pacelli** removed them and corrected the problem with some scraping and fitting.

Atlas : **Ernie Darrow, Dennis Ingalls, Rick Cross** and **Steve Ubowski** resumed work on the brake rigging and tested the effectiveness of the brakes by making repeated trips up and down the 3% grade to Building 8. They are now preparing to get the locomotive painted.

IRT Hose Car **53**: **Victor Gordon** removed rivets, peeled back batten strips and removed corroded sections of roof steel. The underlying carlin frames were sanded and primed. **Al Zelazo** assisted.

IND Subway **1689**: A problem was discovered with the S-16 governor during Members' Day operation. **Jeff Hakner** subsequently overhauled it and also installed an overhauled safety valve. **Jim Day** assisted. Jeff along with **Braeden Coughlin** overhauled a spare trolley pole base to replace the one on the car, which developed issues that sidelined it for the July and August Guest Operator weekends.

BRT Elevated **1349**: **Joe Perrino** continued drilling holes in the new crown beam and fitting the coupler carrier, handbrake staff, anti-climber and other hardware. He removed the platform gates and has begun cleaning, priming and painting them.

C&LE **116**: **Paul Hilzen** continued taking down the luggage racks, refinishing them, and cleaning and painting the interior wall areas behind them. Window posts and sills have also been cleaned and painted.

ConnCo **1802**: **George Papuga** installed brass moulding and trim screws inside the car.

Toronto Sweeper **S-36**: **Rob Paradis** cleaned out the armature and axle bearing wells and made sure the car rolled freely as it was towed out of track 52 (where it has sat since being flooded twice) and moved to track 72, but not before Rob gave it a thorough exterior cleaning. During the winter, additional cosmetic refinishing is planned. As this issue was being closed, we received the good news that several donors are planning to underwrite the museum's cost share in repairing the motors and other required mechanical work.

ConnCo **2350** received a similar bearing freeing-up treatment, also by **Rob Paradis**, and was also moved for the first time since 2011, to Barn 7.

Horsecar **3** is starting to look like a car again! The structure is now complete and the pedestals are being installed in preparation for wheelsets.

Boxcars : **Conrad Misek** led a project with assistance from **Joe Cavanagh** and others to repair roof and door problems with several of the parts storage boxcars alongside Narragansett. He gave each a fresh coat of paint to make them more presentable to visitors on passing trolley cars.

L: A new side sill and new posts are joined to the existing wooden structure of horsecar 3. (*J.Hakner*)

Thank You, 2014 Donors

The Shore Line Trolley Museum gratefully acknowledges the support of over 500 individuals, businesses and foundations during the **2014** calendar year. With your help, the museum connected the Elevating the Collection buildings to the rest of the railway, made repairs to many flood-damaged cars, expanded its library/archival storage, developed new exhibits and continued to improve its public programs.

We also thank those who have donated in 2015. That list will be published after the end of the year.

The officers, trustees, and many other volunteers look forward to your continuing partnership with the museum as we begin our year-end fund drive and look forward to a great 2016!

David A. Ackerman
Rodger J. Addil
Justus J. Addiss
Julia Ahlquist
--In Memory of Donald Hoger
Katherine Alburger
--In Memory of Cornelius Huff
Donald F. Allen Jr.
Andrew M. Amendola
Edward A. Anderson
Joe and Chris Anderson
Maralyn Anderson
--In Memory of Roger Klopfer
Robert D. Andrew
Darrell T Arndt
William M. Attridge
John P. Aurelius
Marianne E. Autorino
Jeffrey R. Babbin
George R. Baehr
Nicholas Bagnoli
Thomas and Suesan Jean Barisic
Steven M. Baron
John Barteau
--In Memory of Roger Klopfer
Robert A. Bass
--In memory of Loris & Anna Bass
C. Benjamin Bates
Richard C. Bauman
Gloria J. Beard
David P. Beattie
Michel Belhumeur
Carl Benfanti
Howard P. Benn
Allan S. Berlin
Sam Berliner III
Vining Bigelow
John W. Birk
Louisa Blaich
--In memory of Roger G. Klopfer
John D. Blanchard
Raymond Blossom
--In memory of Edward Blossom
Larry G. Blumenthal
John Boland
--In Memory of John Dolan, NYCT Motorman
Brandon Bostian
James F. Bott
Judith C. Boucher
--In Memory of George T. Boucher Jr.
Fred Bowden
Robert Bowden
Dana K. Bowers
James F. Boylan
Michalah P. Bracken
David Brody
Barbara and Fred Brow
Anne Brown
--In Memory of Tom Siccama
Carole Brown
Carole Brown
Lauren Brown
--In Memory of Tom Siccama
Karen A. Brozek
Robert E. Buckholz
Michael Buckley
Kenneth Burack
Andy Burger
--In Memory of William T. Lardner
Thomas R. Burkholder
Philip M. Burton
Peter G. Callahan
John C. Cannon
--In Memory of Tom Siccama
Barbara C. Canup
Fred L. Caplan
Richard Cardozo
R. Paul Carey
--In Honor of Dick Hasselman
Leighton B. Carlson and Duane E. Mellor
Barbara Swaetman Carrano
--In Memory of Joseph F. Swaetman
O.E. Gene Carson
Cassano Family
Joseph P. Cavanagh
William W. Christensen
John F. Ciesla
--In Memory of William J. Armstrong
Elizabeth Clark
James F. Clark
R. Thurston Clark
Charles W. Clarke
--In Memory of William L. Huber
Joan O. Clarke
--In memory of William Armstrong
Eliza J Cleveland
--In Memory of Thomas Siccama
David A. Cohen
Syd Cohen
George Conrad
Paul A. Cook
Richard Cosgro
John Cox
Philip G. Craig
Paul T. Criscuolo
Rick Cross
William E. Cummings
--In memory of Roger G. Klopfer
Robert J. Cuniglio
Ernie Darrow
James E. Davies
Paul and Linda Davy
Mr. and Mrs. Richard A. Day, Jr.
Michael DeLillo
Mr. and Mrs. Robert L. Delmonico
--In memory of members Ludwig Riemenschneider and Walter Karppi
Charles R. Dennis
Thomas E. Dennis Jr.
Ellen Denny
--In Memory of Thomas Siccama
Eric A. Dervinis
Kenneth W. DiMauro
John DiSarro III
William H. Dobkins
Francis V. Dougherty
Walter J. Douglas
John M. Drennan
Rev. Louis E. Drew
--In Memory of Louis E. Drew, Sr.
Robert G. Dusel
T. Gerald Dyar
Michael M. Dziewulski
Piotr Dzwonek
James E. East
Peter D. Ehrlich
Donald O. Eisele
Fred G. Eisinger
Robert Elder
--In memory of Roger G. Klopfer
Arthur S. Ellis
Brian C. Entrot
Linda Esposito
Peter Ezzard
James and Judith Farer
Kevin T. Farrell
Robert J. Farrell
Harvey M. Feinberg
Alan Fitz
Randall Fleischer
David W. Follansbee
Andy Friedland
--In Memory of Tom Siccama
Steven M Friedman
Timo Fritzinger
--In Memory of Tom Siccama
Robert P. Fuller
Richard H. Funk
Norman T. Gates
Nathan Gerstein
Orrin J. Getz
Gregory J. Gil
David and Valerie Gladfelter
Todd S. Glickman
Randolph F. Glucksman
Stephen Goldspiel
Gene D. Gordon
Victor H. Gordon
Joseph Gorycki
Drew Goucher
Emily Goucher
Michael R. Goucher
Geoffrey Graham
Jon Graham
Frank Grazioso
Robert Greenberg
Carl T. Grimm
Louis Guadagni
Arlene Hackbarth
Heather Haig
Jeff Hakner
Tony Hall, NJERHS
James B.V. Harris
Richard B Hasselman
J. Norman Hauser
--In Honor of Linda E. Hauser
Ronald Scott Heiderich
--In Memory of William Young
Linda G. Henry
--In Memory of Cornelius Huff
Robert T. Hess
Frank G. Hicks
Judy Olson Hicks
--In Memory of Tom Siccama
J. Wally Higgins
--In memory of Ernie Anderson
Michael R. Hildreth
Troy Hill
--In Memory of Thomas G. Siccama
Paul G. Hilzen
David and Marcia Hindle
--In Memory of Tom Siccama
Lewis Hitch
Martha Hoar
--In Memory of Tom Siccama
Beth Hoger & Lisa Swem
--In Memory of Donald Hoger
Creighton R. Hooker
M. Richard Horn
Mervyn A. Horn
Bill Horne & Lea Brilmayer
Susan M Huff
--In Memory of Cornelius Huff
Joseph H. Hunter
Thomas W. Hunter
John W. Hyland
Dennis Ingalls
Carl S. Jablonski
Russell E. Jackson
Philip Jaeger
Paul Jagger
William P. Jambor Jr.
Charles J. Janoff
Robert W. Janssen
Wayne M. Jones
Raymond M. Jorgensen
Lewis S. Josephs
Joseph A. Joyce
Steven Kalka
William F. Keigher
Joseph M. Kennedy
Terence M. Kennedy
John B. Kirby Jr.
Fred Kirchhoff
David E. Klein
Gary E. Kleinedler
David W. Knapp
Arthur H. Knowlton
John H. Koella
--In Memory of Walter Koella, NHPD
--In memory of Roger G. Klopfer
Frederick Kossack
--In memory of Roger G. Klopfer

Irene L. Kolessar
Constantine N. Kossifos
Ronald Harvey Kriegel
--In memory of Richard J Levinson
Fred H. Krock
Steve Krokowski
David Kronheim
Helen B. Kuch
Ronald Kupin
Timothy Kuryla
--In Memory of Robert Creamer
Stephen Kuznetsov
Michael LaCovara
Therese Parente Laidman
Eunice Y. Lasala
Jerome S. Leibowitz
Louis Levinson
--In Memory of Richard Jay Levinson
Herman G. Lewis Jr.
Eliot J. Lewiskin
Sarah Lex
--In Memory of Cornelius Huff
Francesca J. Libby
J. Thomas Liddle Jr.
Matthew Limoncelli
Kenneth Lindstrom
--In Memory of Donald Hoger
Jan K. Lorenzen
Douglas E. Losty
Ariane Lotti
--In Memory of Prof. Tom Siccama
Andrew T. Ludasi
Edward MacConnie
Tracy Magellan
--In Memory of Tom Siccama
Robert J. Mahar
Jan Maier
William R. Mangahas
John Manley
Howie Mann
Thomas M. Manning Jr.
Carl J. Margolies
Jack May
Thomas G. McBride
Walter J. McCarthy
Donald McClatchey
Michael McDermott
Daniel G. McFadden
Raymond B. McGarrity
Howard F. McGinn
Capt. Bill McKelvey
Edward P McKernan
Joseph J. McMahon
Robert J. Meckes
Philip Mickelson
Edward Mihalko
Conrad H. Milster
Robert C. Minnerly
R. Todd Minsk
John B. Montville
Charles E. Morehouse
Koi Morris
Jim and Barbara Mower
--In Memory of Helen Kaplan
--In Honor of Mike and Marilyn Schreiber
Barbara Mower
William R. Moze
Jack Murphy
William J. Myers
Bart C. Nadeau
--In Honor of Jeff Hakner
Bart C. Nadeau
Lech Naumovich
--In Memory of Tom Siccama
Frederick D. Nicas
Martin Needell
--In honor of Larry Wartur
Dorothy A. Nicolai
Fred P. Nietering
Emily and Ken Nietering
Nathaniel Nietering
David Noyes
Joseph Nuara
William B. Nunn
--In Memory of Donald Hoger
Theresa O'Connor
Donald M. O'Hanley
George A. O'Lear
Michael F. O'Leary
Olaf S. Olsen
Keith W. Olson
--In Memory of Tom Siccama
Peter Orphanos
--In Memory of Cornelius Huff
Carolyn Osborne
--In Memory of Tom Siccama
Joan M. Overton
Richard Paley
Diane Paquette
--In Memory of Tom Siccama
Frank A. Parco
Susan Parente
--In Honor of Ron Parente
Matthew Pastore
Gregory Pategas
Bruce D. Payeur
Alice Pellegrino
--In Memory of Tom Siccama
Cathy Pellegrino
Charles F. Peluse
Fred M. Perilstein
Elyse Perweiler
--In Memory of Cornelius Huff
S. David Phraner
George E Pierce
Herman A Pierson
David C. Pirmann
Joseph G. Platukis
John C. Plytnick
Mary Polansky
--In Memory of Cornelius Huff
Sherry Pomerantz
--In Memory of Cornelius Huff
Vsevolod L. Popov
Erik Porter
Robert J. Powers
Arthur Roger Preisel
--In Memory of Roger G. Klopfer
Chelsea Purvis and Al Jiwa
--In Memory of Tom Siccama
Charles H. Ramsey Jr.
Joseph R. Razek
Hollis M Redding
Carol B. Reid
Amelia Z. Reilly
Merill H. Resnick
Edward Rhodes
Cristin Rich
--In Memory of Tom Siccama
Robert Richard
Theodore A. Richter
Edward A. Ridolph
Dennis O. Riga
The Ringlever Family
--In Memory of Pastor Hoger
Carol Renee Riordan
--In Honor of Finn Riordan
Al Rizzo
Michael R. Rizzo
John A. Roberts
--In memory of Jean A. Roberts
Thomas A. Roell
Carl Romalis
Kenneth E. Rosen
--In Memory of Richard Levinson
Walter H. Rothaug
--In Honor of Bill Wall
--In Memory of George Boucher
Paul R Rowan
Beth Anne Royer
Alice C. & Stephen B. Rudolph
Philip W. Ryan
Robert P. Ryan
David W. Safford
Ronald P. Salyk
Wayne & Christine Sandford
Manuel Sanudo
Diana M. Sattelberger
Thomas Savage
Richard Schlosberg
--In Memory of Richard Levinson
Henry R. Schmoll
Clifford R. Scholes
Ira P. Schreiber
Michael H. Schreiber
--In memory of Richard Levinson
Thomas Schuster
--In memory of Roger G. Klopfer
David O. Sears
Eugene Serba
--In Memory of Cornelius Huff
Paul Alan Ramirez
Edward J. Sarkauskas Jr.
Paul Serenbetz
Tom Sharratt
Marlene Shute
Michael S. Sica
John and Lucille Sikorski
Michael A. Silano
Robert Silver
Donald E. Simon
Robert W. Simon
James R. Simons
Ethan Sinyavsky
Judy C. Sittnick
Jessie Snyder
--In Memory of Tom Siccama
John R Soehnlein
--In Memory of Carmela Proto
Cynthia Spinnler
John C. Spychalski
Herbert S. Statsinger
--In Honor of Nunzio Competiello
Constantine Steffan
--In Memory of Louis P. Shavell
James F. Steiner
John Stern
John R. Stevens
--In memory of Frederick S. Bennett
Aaron J. Stroh
Mark P. Sullivan
Jack W. Swanberg
Leslie F. Szolosi
Gerard M Taliercio
Thomas L. Tallentire
Franklin S. Teifeld
Edson L. Tennyson
Robert Terhune
Robert L. Thain
--In memory of Ruth & Larry Thain
Norman R. Therkelson
Bruce W. Thompson
The Tibbs Families
--In Memory of Roger G. Klopfer
Roberto E Tillman
Louise Tritton
--In Memory of Tom Siccama
Debbie and Richard Turner
George B. Uihlein
John C. Urbanski
James A. Vaitkunas
Robert Valley
James B. Van Bokkelen
Fred R. Volkmar MD
Richard A. Vollmer
Friends at Pioneer Valley Winnelson
--In Memory of Roger Klopfer
Ron Walker
William E. Weber
Paul Weidner
Peter C. Weiglin
Donald E. Weimer
Kelsey Wharton
--In Memory of Tom Siccama
Allan T. Wilcox
John W. Wilhelm
Brad S Williams
--In Memory of Donald R. Hoger
Howard G. Williams
James and Kathleen Williams
Roger A. Wines
Julien R. Wolfe
Theodore Wong
--In Memory of Tom Siccama
Haydn Wootton
David R. Yale
Doug and Pam Young
--In memory of William B. Young
Lucy B. Young
--In memory of William B. Young
Malcolm L. Young
William J Younie
--In memory of Anne M. Younie
Peter Zanger
Alan, Dolores, Jonathan & Stephanie Zelazo
--In Memory of Philip Zelazo
Marvin P. Zimmerman
Remy Zimmermann
George Zubal
Barry J. Zuckerman
ANONYMOUS (23 donors)

20th Century Elec Ry Foundation
Amherst Railway Society
Branford Community Foundation
Chevron Humankind Matching Gift Progra
Coastal Camera Club
--In Memory of Ernie Anderson
Covidien
Davey Company
GE Foundation
IBM Matching Grants
MarineEngine.com, Inc.
Oneida Financial Co. Social Club
--In memory of Roger G. Klopfer
Radian Group Matching Gift Program
Short Beach Days Committee
Sprague Foundation Inc.
Tom E. Dailey Foundation
United Technologies
Verisk Analytics Co.
H. Albert Webb Memorial Railroad Preservation Award
Vulcan Materials Co

70th Anniversary of Museum's Founding

On Tuesday, August 14th, 1945 a fee of $15.00 was paid to the State of Connecticut and the Branford Electric Railway Association, Inc. was officially recognized. While there were several people involved in the formation of the Association, W.G. "Bill" Fyler is credited as the founding member. He had developed the idea to establish a museum that would take over an existing, operating, intact electric railway line several years earlier as a member of the Connecticut Trolley Museum, which was founded in 1940 and recently observed its 75th anniversary. Fyler lamented that "Warehouse Point," as it was colloquially known, had only an empty right-of-way where a trolley line once ran, and questioned if it would ever be able to operate more than a short distance, as the line crossed a public road (in fact, it did take over 10 years for Warehouse Point to begin operations).

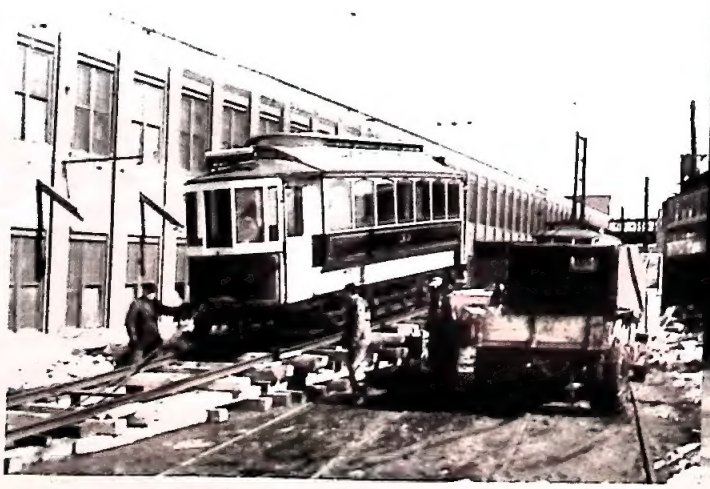
As Fyler recalled in his memoirs, he approached the Vice-President of the Connecticut Company, a man named R.J. Bennett, and presented his plan for preserving not only the trolley cars, which were fated to be abandoned as soon as W.W. II was over, but indeed an entire line. A deal was reached whereby the Connecticut Company would sell a line to B.E.R.A. at a greatly reduced price, essentially the scrap value of the rails and wire, whenever such a line were to be abandoned. With assistance from New Haven area railfans, such as the New Haven Car Riders' Club, the Branford "F" trolley route was selected because it was entirely on private property and thus would obviate the regulatory complexities of operating on a public street, and because there was some farmland available adjacent to the line that could be used to construct a yard and buildings.

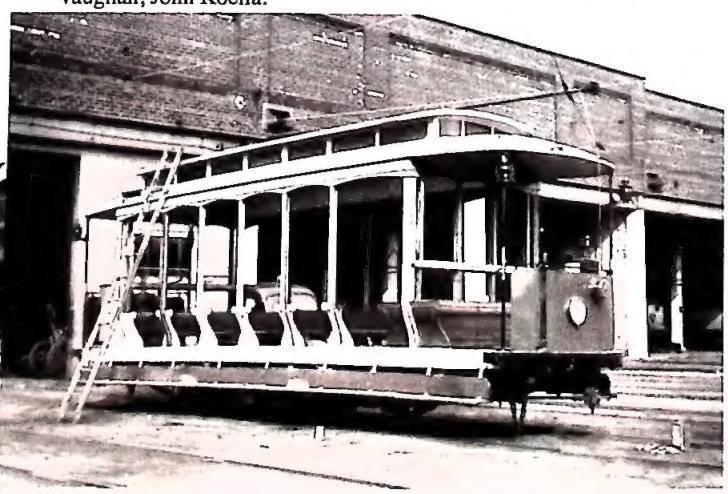
The Certificate of Incorporation lists W.G. Fyler, A.S. Webster, F. Raymond Gale, H.H. Hamilton, Charles F. Munger Jr. and H. Gordon Pilkington as the initial subscribers to the corporation, and states that the corporation will be located in Branford (the museum would not have a footprint in East Haven until the construction of Sprague Station in the late 1950s) with its office in West Hartford.

Transfer of ownership of the Branford line would take place in March, 1947. Between August 1945 and then, the Association was headquartered in space donated by the Conn. Co. at their James Street carbarn located in New Haven. BERA even began acquiring equipment. The first car to be owned by BERA was an 1899 single-truck open car, originally from Lynchburg VA, and later owned by the 5-Mile Beach Railway in Wildwood, NJ. This car, #34, was brought to James St. in 1946 and worked on there, prior to it and several other cars that the museum obtained being moved to the current museum campus in the 1947-1948 time period.

The name of the museum was chosen based on the original corporate name under which the charter to build the line was first granted in 1897. As it turned out, it was the Branford Lighting & Water Co. which actually constructed the line in 1900 however, BLWA would not roll off the tongue as nicely as BERA. Since the line was obtained intact and was never abandoned, the museum railway is recognized as the oldest *continuously* operating suburban trolley line. It is also the oldest trolley museum by date of first operation. Although Seashore and Warehouse Point were founded earlier (1939 and 1940, respectively) they began operations in the early 1950s, while our museum was operating for the public by 1949. The corporate name of our museum is still the Branford Electric Railway Association, Inc. but since the 1980s we have operated under the public name of The Shore Line Trolley Museum.

A publicity photo which appeared in a 1947 newspaper article shows some of the early active members of the museum with the deed to the Branford property, at the location of the future museum, with Parlor Car 500 as the backdrop. (l-r) Fred Bennett, H.H. Hamilton, Roger Klopfer, Malcom Greenaway, W.G. Fyler, Charles Munger, Tom Vaughan, John Koella.





L: Delivery of Third Ave Ry. car 220 (aka work car #33) to James St. barn, February 25, 1947. (*John Koella*) R: The museum's first car, #34, is being repainted at James St. on August 8, 1946. (*Loris J. Bass*)

from pg. 20

million. Since the Irene award was released in 2013, approximately $200,000 has been spent and $150,000 received in reimbursement from FEMA. How has the museum funded its $50,000 share of the cost?

First, from the continuing support of museum members and friends who donate to the Annual Fund. Furthermore, through corporate and foundation grants which support the overall program, or specific cars. Finally, through sponsorships of specific cars by individuals or small groups of individuals who commit to covering the entirety of the FEMA cost-share.

The museum has already applied for and received a 30-month extension on the deadline to complete the Irene work, which by federal statute is initially set to 30 months. While subsequent extensions are possible, they are not guaranteed. It therefore is imperative that the momentum be sustained so that our goal of completely reversing the effects of these two storms to our collection can be realized.

Also critical is completing the Elevating the Collection project. Specifically, FEMA has stipulated that in lieu of obtaining flood insurance for the cars on the excess market, at unaffordably high rates, we must have sufficient trackage above the flood plain completed by the Spring of 2016. Towards this end, an all-hands effort will begin this Fall and continue, weather permitting, until this goal is reached.

For more detailed technical discussion of the work in progress, see the Departmental Reports section on page 13.

TOP L: (l-r) Matt Vitka and Mat Lyons assist with installation of traction motor for car 2001. BOT L: (l-r) Mat Lyons, Joe Marcarelli, Matt Vitka, Braeden Coughlin remove gearcases and motors from car 1425. TOP R: (l-r) Denny Pacelli, Joe Marcarelli and Matt Vitka lower motor onto the axle for car 302. Close-up shows the clean pinion gear of the overhauled motor meshing with the greasy bull gear on the axle. (*J.Hakner*) MID R:George Papuga, who led the 302 project, prepares to depart the loop on Members' Day. (*N.Nietering*) BOT R: Paul Davy pulls out of the shop on 9137, under its own power again for the first time since 2011. (*L.Zelanakas*)

THE SHORE LINE TROLLEY MUSEUM
Operated by the
BRANFORD ELECTRIC RAILWAY ASSOCIATION
www.ShoreLineTrolley.org (203) 467-6927

17 River Street
East Haven, CT 06512

ADDRESS SERVICE REQUESTED

Non-Profit
Organization
US Postage
PAID
Permit No. 74
Branford, CT

Flood Recovery Program Update

Since our last issue there have been many positive developments in the museum's FEMA-subsidized program to repair the flood damage from storms Irene and Sandy. On Members' Day, April 25th, car 302 operated for the public for the first time. This car, brought back to life after being disabled in the 2011 Irene storm, was soon followed by car 2001, which was successfully test-run in August, and 9137 which ran again in early September. As of this writing, re-installation of overhauled motors for cars 1792 and 865 is ongoing. 2898's motors are expected back from the motor shop very shortly, which is currently working on 1425's motors (removed in August). Car 500 is scheduled to come into the shop next for motor removal. Re-assembly of cars 4573 and 1001 is pending.

In total, the museum has 53 cars which are eligible for FEMA funding. To date, we have worked only on damage caused by Irene, but the program is now expanding with the announcement by FEMA in July that our claim for Sandy has been approved. This means "green signals ahead" for those cars that have both Irene motor damage and subsequent Sandy damage to other components, such as compressors, controls and brakes, all of which need to be remediated for these cars to operate again.

The combined estimated value which has been accepted by FEMA of the repair work in the Irene and Sandy programs is $3.1

continued overleaf

TOP: Car 302 on its inaugural run, Members' Day April 25, 2015. (*Bill Monaghan*) BOT: 2001 on a test run in late August. (*J. Hakner*)